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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,428	02/12/2004	Thomas Beisswenger	510.1095	4326
23280	7590	12/05/2005	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			KERNS, KEVIN P	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,428

Applicant(s)

BEISSWENGER ET AL.

Examiner

Kevin P. Kerns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 12-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-11 is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/12/04, 11/9/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicants' election without traverse of Group I (claims 1-11) in the reply filed on November 9, 2005 is acknowledged.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "J" (Figures 3-5). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

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of the following is required: in claims 5-7, all limitations that relate to the first, second, and third time periods are absent from the specification.

4. The disclosure is objected to because of the following informalities: in paragraph [0024], 3<sup>rd</sup> line, replace "2,8" with "3,8" after "foil". In paragraph [0027], 1<sup>st</sup> line, replace "vaules" with "values". Appropriate correction is required.

### ***Claim Objections***

5. Claim 8 is objected to because of the following informalities: in the 1<sup>st</sup> line, replace "6m" with "6,". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujikawa et al. (US 5,147,086) in view of JP 8-215551.

Fujikawa et al. disclose a method for resistance seam welding of a capsule that contains foil and a foil support, in which the method includes the steps of pairing the foil 2 with the foil support (coating layer 15) on a flat support element 6, resistance seam welding (from roller electrodes 5A and power supply 5C) the foil support and the foil in a gas-tight manner via evacuation of air from vacuum pipe 7, and moving the foil and foil support on the support element relative to the roller electrodes 5A during welding (abstract; column 1, lines 7-17; column 2, lines 66-68; column 3, lines 1-66; column 4, line 40 through column 8, line 47; and Figures 1-9). Fujikawa et al. do not disclose that the foil and foil support comprise portions of a fuel cell system.

However, JP 8-215551 discloses a hydrogen separation membrane as a portion of a fuel cell system, in which the membrane includes a hydrogen-permeable metallic foil 1 that is joined by welding through layer of metal selected from Ag, Au, Pt, and Cu, such that the joining of the metallic foil to the metal layer is advantageous for enhancing durability and preventing deterioration of the joined metallic materials (abstract; paragraphs [0005]-[0025]; and Figures 1-4).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the method for resistance seam welding of a

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capsule that contains foil and a foil support, as disclosed by Fujikawa et al., by applying the method to a foil portion of a hydrogen separation membrane as a portion of a fuel cell system, as taught by JP 8-215551, in order to enhance durability and to prevent deterioration of the joined metallic materials (JP 8-215551; abstract; and paragraph [0025]).

***Allowable Subject Matter***

9. Claims 3-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest the method of resistance seam welding of a foil and at least one foil support of a fuel cell system having all limitations of independent claim 1, and further including the additional steps of 1) disposing the foil between two foil supports, with one of the two foil supports being in contact with a support element (dependent claim 3); 2) performing heat treatment on the foil and at least one foil support after welding (dependent claim 4); and 3) annealing the foil and at least one foil support after welding (dependent claim 9).

**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,011,236 is also cited in PTO-892.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns 11/30/05*  
Primary Examiner  
Art Unit 1725

*KPK*  
kpk  
November 30, 2005